

(No Model.)

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SLED.

No. 510,221.

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Fig. 1.

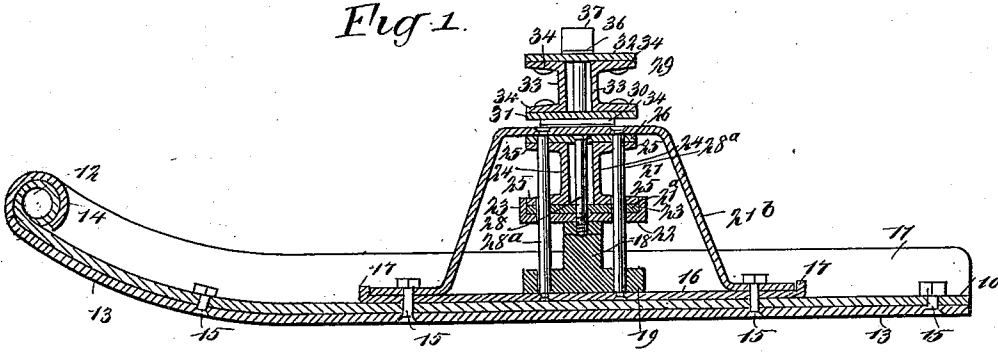


Fig. 2.

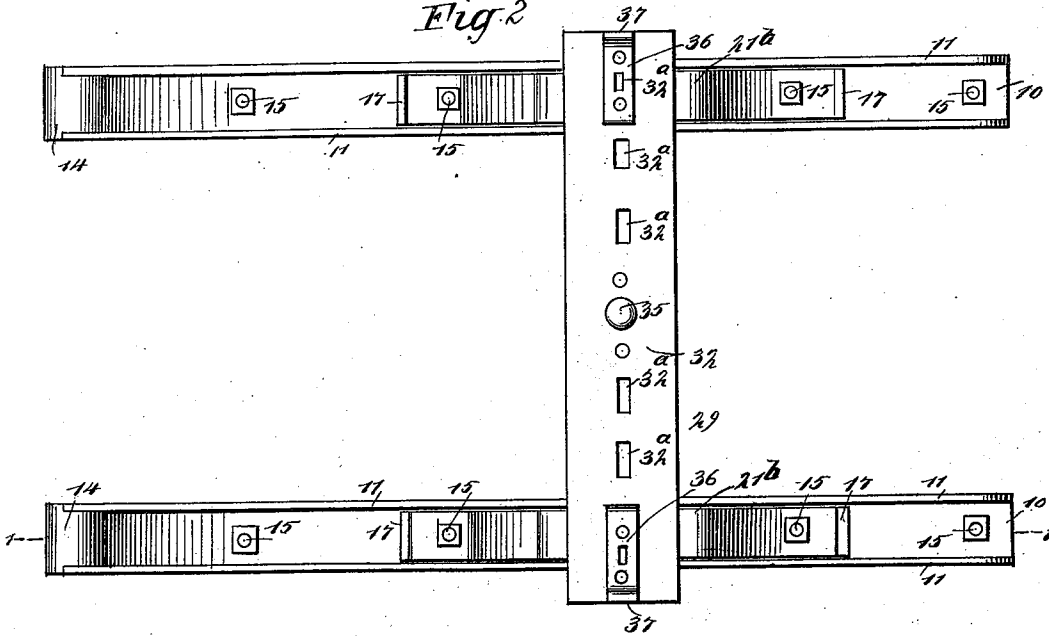
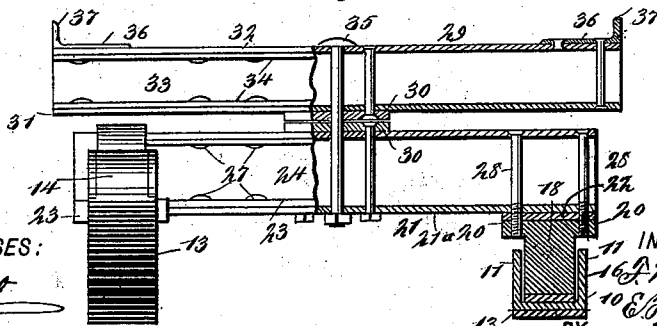


Fig. 3.



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SPECIFICATION forming part of Letters Patent No. 510,221, dated December 5, 1893.

Application filed May 29, 1893. Serial No. 475,891. (No model.)

To all whom it may concern:

Be it known that we, FRANKLIN N. WILDE and ELMER F. CAMPBELL, of L'Anse, in the county of Baraga and State of Michigan, have invented a new and Improved Sleigh, of which the following is a full, clear, and exact description.

Our invention relates to improvements in lumber sleighs or bob-sleighs, such as are used for drawing heavy loads of lumber, but the improvements may be applied to all sizes of sleighs whether heavy or light; and the object of our invention is to produce a simple, inexpensive and comparatively indestructible sleigh of this kind. These sleighs or sleds are usually made of wood and are used up very rapidly, and another object of our invention is to produce an all metallic sleigh which is preferably made of steel, which is constructed so as to be very light and strong, as its parts are made in such a way that they may be very conveniently assembled and strongly fastened together, and also to produce a sleigh on which a load may be conveniently placed and carried.

To these ends our invention consists of certain features of construction and combinations of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a central longitudinal section on the line 1—1 in Fig. 2. Fig. 2 is a plan view of the sleigh; and Fig. 3 is a front end view, partly in section.

The sleigh is provided with suitable runners 10 which are curved in the usual way so as to ride easily over obstructions, and to increase their strength and to enable them to be made light they are provided with upturned side flanges 11, as shown best at the right hand in Fig. 3. The runners are also turned up at their front ends to form sockets 12 around which the shoes 13 are turned, as shown at 14, and the sockets also are adapted to receive bolts by which the tongue may be fastened in the usual way. The shoes 13 are fastened to the runners by means of bolts 15, in substantially the usual way, and a por-

tion of the bolts are also used to fasten in place the bearing plates 16 which lie centrally on the runners 10, and these bearing plates support the bearing blocks 18 and have upturned end flanges 17 against which the ends of the knee braces bear, as shown in Fig. 1. The bearing blocks 18 are secured centrally upon the plates 16 and between the flanges 11 of the shoes, each block having a bearing base 19 to enable it to rest firmly upon the bearing plate, and each block is also widened at the top, as shown at 20 in Fig. 3, to enable the beam 21 to rest firmly upon it and also to provide for the easy attachment of the beam to it. The beam 21 is of a generally rectangular shape, and is adapted to lie firmly upon the bearing blocks 18 to which it is secured. The beam has a bottom plate 21^a which rests in end plates 22, these being secured to the blocks 18 and having upturned flanges 23 which embrace the bottom plate 21^a of the beam and also the base flanges 25 of the side pieces 24 of the beam, these side pieces being placed opposite each other and having horizontal flanges 25 at top and bottom, as shown best in Fig. 1. The beam has also a top plate 26, which lies upon the top flanges of the side pieces 24, and the top and bottom plates of the beam are firmly riveted to the flanges of the side pieces by rivets 27. See Fig. 3. The beam is also provided with long bolts 28 and 28^a, near the ends, which project downward through it and through the plates 21^a into the widened portions 20 of the bearing blocks 18, as shown in Fig. 3, and also down through the blocks and into the bearing plates 16, as shown in Fig. 1. To the ends of the beam 21 are secured knee braces 21^b, these being of substantially the usual shape, but formed of flat metal, and their lower ends are turned to fit snugly against the bearing plates 16 and flanges 17, the braces being firmly bolted to the plates, as illustrated in Fig. 1.

On the beam is supported a bolster 29, which is also of a generally rectangular shape and is made substantially like the beam, the bolster comprising the bottom and top plates 31 and 32 and the side plates 33 which have horizontal flanges 34 riveted securely to the top and bottom plates, as shown in Figs. 1 and 3. On the bolster, at its opposite ends, are

retaining plates 36, which have upturned ends 37, and these are adapted to engage the lumber carried by the bolster and prevent it from sliding off. Between the bolster and the beam are preferably arranged wear plates 30 on which the bolster turns, and the bolster and beam are united in substantially the usual way, by a king bolt 35. In the top of the bolster are slots 32^a which permit a hook to be conveniently placed beneath any object on the bolster when the said object is to be moved.

It will be seen from the above description that the sleigh may be cheaply made of metal, steel being preferably used, that the parts may be easily secured together, and that when once put together the sleigh is extremely strong. In practice two sleighs are generally used, these being connected in the way bobsleighs are usually arranged.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A metallic sleigh, comprising runners having flat bottoms and upturned side flanges, shoes secured to the runners, bearing blocks supported on the runners, a cross beam secured to the bearing blocks, knee braces fastened to the beam and to the runners, and a bolster pivoted on the beam, substantially as described.

2. A metallic sleigh, comprising runners having upturned side flanges, shoes fastened to the runners, bearing plates secured to the runners and having upturned end flanges, bearing blocks secured to the bearing plates,

a cross beam fastened to the bearing blocks, knee braces secured to the beam and bearing plates, the ends of the braces abutting with the flanges of the bearing plates, and a bolster pivoted on the cross beam, substantially as described.

3. A metallic sleigh, comprising runners having upturned side flanges, bearing blocks secured to the runners, a cross beam supported on the bearing block, the beam comprising top and bottom plates and side pieces having out-turned flanges bolted to the said top and bottom plates, knee braces secured to the cross beam and to the runners, and a bolster constructed essentially like the cross beam and pivoted thereto, substantially as described.

4. A metallic sleigh, comprising runners having upturned side flanges, bearing plates secured between the flanges of the runners and provided with upturned end flanges, bearing blocks supported on the bearing plates, socket plates on the tops of the bearing blocks, a cross beam secured in the socket plates and bolted to the socket plates and blocks, knee braces fastened to the cross beam and to the bearing plates, the ends of the braces abutting with the flanges of the bearing plates, and a bolster pivoted on the cross beam, substantially as described.

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